

## PCI Data Work Group Recommendations

### Introduction

The Maryland Health Care Commission (MHCC) defines specialized cardiac care to include three major services: (1) emergency angioplasty, referred to as primary percutaneous coronary intervention (pPCI) services, for certain types of heart attacks or ST elevation myocardial infarctions (STEMIs); (2) elective or non-primary percutaneous coronary intervention (npPCI); and, (3) cardiac surgery. There are currently ten Maryland hospitals that offer all three specialized cardiac care services. In addition, thirteen Maryland hospitals without cardiac surgery on-site provide pPCI services under a waiver program established by the Commission.<sup>1</sup>

Under COMAR 10.24.17<sup>2</sup> and COMAR 10.25.04<sup>3</sup>, the Commission collects data on patients receiving specialized cardiac care services. The Commission is interested in adopting standard data sets for each category of specialized cardiac care service that will provide high quality and timely data measuring the process and outcomes of care. To obtain feedback from stakeholders and interested organizations on PCI data collection approaches, a ***Request for Public Comment: Collection of Data on Specialized Cardiac Care Services: Percutaneous Coronary Intervention Services (Primary and Non-Primary) and Cardiac Surgery Services*** was posted on the Commission's website on September 28, 2009.<sup>4</sup> In response to this solicitation, comments were received from 15 organizations and individuals: Adventist HealthCare; American College of Cardiology (Maryland Chapter); American Heart Association; Anne Arundel Medical Center; Carroll Hospital Center; Frederick Memorial Healthcare System; Holy Cross Hospital; Johns Hopkins Health System; MedStar Health; Maryland Institute for Emergency Medical Services Systems (MIEMSS); Peninsula Regional Medical Center; Southern Maryland Hospital Center; the Society for Cardiovascular Angiography and Interventions; University of Maryland Medical Center; and, Western Maryland Health System.

To consider the public comments received on percutaneous coronary intervention (PCI) data reporting and develop a proposed plan, the Commission invited organizations who submitted comments to participate on a Percutaneous Coronary Intervention (Primary and Non-Primary) Data Work Group.<sup>5</sup> The PCI Data Work Group members are provided in Figure 1.

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<sup>1</sup> Nine of these hospitals have been approved by the Commission to participate in a research study of non-primary PCI in hospitals without cardiac surgery on-site. Hospitals participating in this research study are reporting data to the C-PORT-E Registry.

<sup>2</sup> COMAR 10.24.17.05D(1) State Health Plan for Facilities and Services: Specialized Health Care Services-Cardiac Surgery and Percutaneous Coronary Intervention Services, Waiver from Policies, Primary Percutaneous Coronary Intervention in Hospitals without On-Site Cardiac Surgery. Table A-1, Process and Outcome Measures for Ongoing Quality Assessment.

<sup>3</sup> COMAR 10.25.04.02B, Hospital Quality and Performance Evaluation System, Hospital Evaluation—Data Collection and Reporting Requirements.

<sup>4</sup> The comment period closed on October 23, 2009.

<sup>5</sup> A separate Cardiac Surgery Data Work Group will be established to consider the public comments received on cardiac surgery data reporting.

**Figure 1**  
**PCI Data Work Group Members**

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Washington Adventist Hospital

Anastasia Brown, BSN  
Director, Quality/ Regulatory Affairs  
Anne Arundel Medical Center

Nancy Bruce, RN  
Director, Cardiovascular Services  
Frederick Memorial HealthCare System

Dana Farrakhan, FACHE  
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Data Analyst  
Western Maryland Health System

Roger Leonard, MD, FACC  
MedStar Health/Montgomery General  
Hospital

Lisa Myers, RN  
Director, Special Programs  
Maryland Institute for Emergency Medical  
Services Systems

Marica Rabiah Manzoor, RN  
Clinical Coordinator, C-PORT-E  
Holy Cross Hospital

Benjamin Paul  
Cardiovascular Data Manager  
Adventist HealthCare

Jon R. Resar, MD  
Associate Professor of Medicine  
Johns Hopkins Medical Institutions and  
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Jeanne E. Ruff, MS, FAACVPR  
Peninsula Regional Medical Center

Sharon Gomes-Sanders, RN  
Director, CV & Outpatient Services  
Carroll Hospital Center

Gail Shults, RN, CCRC  
Research Manager  
Shady Grove Adventist Hospital

Valerie Strickroth  
Supervisor, Cardiac Catheterization  
Laboratory  
University of Maryland Hospital

Mark A. Turco, MD, FACC, FSCAI  
Washington Adventist Hospital/Frederick  
Memorial Hospital

The PCI Work Group met on December 7, 2009, December 16, 2009, and January 22, 2010. Meetings of the Work Group were open to the public and materials considered at each meeting were posted to and available on the Commission's website ([http://mhcc.maryland.gov/hospital\\_services/specialservices/cardiovascular/pci\\_data\\_workgroup.html](http://mhcc.maryland.gov/hospital_services/specialservices/cardiovascular/pci_data_workgroup.html)). The Work Group reviewed in detail the issues raised in response to the Commission's request for comments on alternative approaches to cardiac data collection at the December 7, 2009 meeting. At the December 16, 2009 Work Group meeting, representatives from the ACTION Registry®-GWTG™ and NCDR CathPCI Registry® presented information in response to a number of questions identified by Work Group members, including the major differences between the NCDR ACTION-GWTG and CathPCI Registries; the ability for facilities using both registries to enter data fields common to both (e.g., patient demographic data) only once; the availability of the ACTION-GWTG Limited data set; the Risk-Adjustment methodology and institution-specific quarterly and annual reports provided by each Registry; the ability to establish customized data fields for items desired by the State of Maryland; the options available to establish an audit process for the data; future plans for the ACTION-GWTG Registry and the CathPCI Registry and plans to combine the two data bases in the future; and, how the ACC-NCDR could work with the State on reporting and analysis. At the January 22, 2010 meeting, the Work Group considered a set of draft recommendations to circulate for comment. This report presents the recommendations developed by the PCI Data Work Group.

## **Background**

The Commission's STEMI Registry, which began in 2006, collects data on all STEMI patients undergoing pPCI in hospitals without on-site cardiac surgery programs approved under the Commission's pPCI waiver program. The STEMI Registry was developed by the Commission to continue data collection for pPCI patients following the important research study and registry conducted by the Cardiovascular Patient Outcomes Research Team (C-PORT) project involving pPCI services in hospitals without on-site cardiac surgery services. Most of the 13 hospitals participating in the Commission's STEMI Registry were participants in the earlier study or registry sponsored by the C-PORT project. The STEMI Registry does not include patients undergoing pPCI in the ten Maryland hospitals with cardiac surgery programs on-site. The STEMI Registry for new pPCI patients ended December 31, 2009.

Data on PCI services is also collected using the American College of Cardiology's National Cardiovascular Data Registry (NCDR) CathPCI Registry® instrument. A total of 19 Maryland hospitals participate in the CathPCI database, including all 10 hospitals with cardiac surgery on-site and nine of the 13 pPCI waiver hospitals.

Since the development of the Commission's STEMI Registry, the American College of Cardiology's NCDR facilitated the creation of the Acute Coronary Treatment and Intervention Outcomes Network (ACTION) Registry in 2007. In June 2008, the American Heart Association's Get With the Guidelines-Coronary Artery Disease (CAD) Program joined in to create NCDR ACTION Registry®-GWTG™. Eleven Maryland hospitals currently participate in the ACTION Registry®-GWTG™ database, including seven of the 13 hospitals that also

participated in the Commission's STEMI Registry. Two hospitals with cardiac surgery programs on-site and two other hospitals also participate in the ACTION Registry®-GWTG™ database.

Table 1 summarizes Maryland hospital participation in cardiac data bases.

**Table 1**  
**Maryland Hospitals Currently Enrolled in the Maryland STEMI Registry, NCDR™ ACTION Registry® –GWTG™ and NCDR® CathPCI Registry®**

<b>Hospital</b>	<b>NCDR™ ACTION - GWTG</b>	<b>NCDR® CathPCI</b>	<b>Maryland STEMI Registry*</b>
<b><i>Primary PCI Waiver Hospitals (without on-site cardiac surgery)</i></b>			
Anne Arundel Medical Center	X		X
Baltimore Washington Medical Center	X		X
Carroll Hospital Center	X	X	X
Franklin Square Hospital Center		X	X
Frederick Memorial Hospital		X	X
Holy Cross Hospital	X		X
Howard County General Hospital		X	X
Johns Hopkins Bayview Medical Center		X	X
Saint Agnes Hospital	X		X
Shady Grove Adventist Hospital	X	X	X
Southern Maryland Hospital Center	X	X	X
Upper Chesapeake Medical Center		X	X
Washington County Hospital		X	X
<b><i>Cardiac Surgery Hospitals</i></b>			
Johns Hopkins Hospital		X	
Peninsula Regional Medical Center		X	
Prince George's Hospital Center		X	
St. Joseph Medical Center		X	
Sinai Hospital		X	
Suburban Hospital		X	
Union Memorial Hospital		X	
University of Maryland Medical Center		X	
Washington Adventist Hospital	X	X	
Western Maryland Regional Medical Center	X	X	
<b><i>Other Hospitals</i></b>			
Garrett County Memorial Hospital	X		
Montgomery General Hospital	X		

Available from <https://www.ncdr.com/WEBNCDR/ACTION/ParticipantDirectoryPublic.aspx> and <https://www.ncdr.com/WebNCDR/ParticipantDirectoryPublic.aspx>; accessed January 20, 2010.

\*Note: The Maryland STEMI Registry ended on December 31, 2009.

## Recommendations

1. **The Work Group recommends that Maryland adopt the NCDR CathPCI Registry® tool.** This tool should be used by all Maryland hospitals providing primary and/or non-primary angioplasty. The data set collected by the NCDR CathPCI Registry® should be supplemented with additional items based on recommendations from the Cardiac Data Advisory Committee.
2. **The Work Group recommends that Maryland adopt the ACTION Registry®-GWTG™ tool.** This tool should be used by all Maryland hospitals providing primary angioplasty that seek designation by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) as a Cardiac Interventional Center. Based on experience with these hospitals, the Cardiac Data Advisory Committee should explore use of the ACTION Registry®-GWTG™ tool to support quality improvement efforts for all AMI patients.
3. **The Work Group recommends the establishment of an ongoing Cardiac Data Advisory Committee to review data collected, interpret and adjudicate the data, and make recommendations to the Maryland Health Care Commission.** The committee should advise the Commission on data collection, reporting, risk-adjustment, and auditing processes to facilitate quality improvement; ways to develop a cardiac data system for Maryland that leverages existing registries; mechanisms to promote sharing of information for transferred patients and for patients using emergency medical service providers; and, any required changes to the data set, as the data collection and reporting process evolves, or as changes are made, for example, to the requirements for the primary PCI waiver.

The membership of the Cardiac Data Advisory Committee should include expertise in the areas of cardiac care services, interventional cardiology, statistical analysis, health information technology, and analysis of process and outcome measures, and include both in- and out-of-state representatives. The Cardiac Data Advisory Committee should include subcommittees as required to focus on specific topics. One of the subcommittees should address the financial issues associated with implementing these recommendations, including the feasibility of obtaining support from the Health Services Cost Review Commission. To ensure that the data collected is accurate and complete, a subcommittee should be formed to provide guidance to the Commission on the form and frequency of audits; and, develop a process to adjudicate audit findings as appropriate.

Comments on the PCI Work Group Recommendations should be forwarded not later than **4:00 p.m. on Friday, March 5, 2010** to: Pamela W. Barclay, Director, Center for Hospital Services, Maryland Health Care Commission, 4160 Patterson Avenue, Baltimore, Maryland 21215; [pbarclay@mhcc.state.md.us](mailto:pbarclay@mhcc.state.md.us)

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